Public Service Commission of Wisconsin
Surrebuttal Testimony of Amy Pepin
Division of Energy Regulation

Wisconsin Public Service Corporation
Docket 6690-UR-124

October 2, 2015

Q. Please state your name.

A. My name is Amy E. Pepin.

Q. Have you previously filed testimony in this proceeding?

A. Yes.

Q. What is the purpose of your surrebuttal testimony?

A. The purpose of my surrebuttal testimony is to rebut testimony offered by Wisconsin Public Service Corporation (WPSC) witnesses Lisa Gast and Paul Moul.

Q. What comments do you have on Ms. Gast's rebuttal testimony?

A. Ms. Gast argues that increased customer charges do not reduce risk. While I agree that utilities face risks that do not change with the level of the customer charge, such as those Ms. Gast lists on page 2 lines 5 through 9 of her rebuttal, the point is that revenues are more stable with a higher customer charge. When a utility collects a higher proportion of its revenue through customer charges, there is a lower risk of under-recovering its costs, because its revenue stream does not vary as much due to factors like weather or customers conserving energy.

Q. Please comment on the discussion contained on Rebuttal-WPSC-Moul-2 through Rebuttal-WPSC-Moul-3 on the increase in interest rates and subsequently the increase in required return on common stock.

A. The argument is based on the presumption that because interest rates for bonds are increasing, the cost of equity must also increase proportionally; the premium is assumed to remain unchanged. This is not necessarily the case and highlights a problem with risk premium models.

As fixed income securities, the bond prices and yields can be expected to be impacted by higher interest rates. However, investors may perceive common stocks as better investment opportunities than U.S. Treasury and utility bonds in light of any expected increased interest rates and as such, require less risk premium than in the recent past. A more direct measurement of the stock market will highlight any change in risk premium that investors are requiring.

Commission staff directly uses fixed income forecasts to estimate debt costs, but then Commission staff only looks to those forecasts within the test year in which the rates are applicable, in this case test-year 2016. To look further is irrelevant since Wisconsin utilities reset their cost of capital biennially, if not yearly, as in this case for WPSC. Equity investors factor their expectations for future interest rates and inflation, as well as other factors in setting the purchase price they will pay. The discounted cash flow (DCF) model analyzes the investors' expectations as reflected in the price and further adjustments are not necessary.

Q. Do you have any comments on setting the return on equity equal to the maximum interest rate premium on Schedule 8 of your Ex.-PSC-Pepin-1?

A. Yes. First, this schedule is not a market model. In addition to being skewed because of gradualism, the premiums are based on the return on equity granted and the current yields in the month decided. Consequently, when there is a variance between the forecasted

test-year interest rate and the current rate used at the time of the decision, the skewing will be magnified, and the use of maximum or minimum premiums should be viewed with caution. For example, in WPSC's last rate case in docket 6690-UR-123, the forecasted ten-year bond was 3.43 percent for the test year, not the 2.33 percent actual when the decision was made.

Q. Please comment on Mr. Moul's assertion that "…investors do not require forecasts beyond five years to price stocks. If they did, I am sure that an entity would develop such forecasts to fulfill the demands of investors. Since those forecasts do not exist, growth rate beyond five years are not generally used by investors and therefore are not relevant to current stock prices."

A. The problem with only looking at the constant growth model is that the growth rate may not be sustainable. Contrarily to the assertion, Robert A Haugen, in his book *Modern Investment Theory*,[1] states:

> Analysts frequently make the assumption that a firm's growth rate will change in a series of stages. The most simple variant is the two-stage growth model. Here we assume the dividend will initially grow at an above or a below average rate for a number of years. At the end of this period, which is called the *growth horizon*, the growth rate reverts to that of an average or standard share. The length of the growth horizon depends on the length of time into the future you feel comfortable with your forecast of abnormal growth for the stock. Obviously, at some point in the future, things will seem so uncertain that you have no reason to believe that the stock can be distinguished in terms of its growth rate. Beyond this point the best assumption will be that the stock will grow at an average rate.

Commission staff's sensitivity analysis looks at a terminal growth rate of 5.5 percent, which represents the nominal long-term growth rate for the economy such as the gross domestic product, and is generally considered the maximum terminal growth

[1] Robert A. Haugen, *Modern Investment Theory, Second Edition*, Prentice Hall, 1990, p. 564.

rate possible. The lower 2.5 percent was based on a Commission staff analysis based on a 40-year historic period.

Page 1 of Schedule 7 of Ex.-PSC-Pepin-1 shows the financial analysts' estimates for growth in the next five years. As shown, the median earnings growth rate for utilities is 5.0 percent. This compares to the median earnings growth rate for the next five years for low risk non-utility stocks, which is forecasted to be 8.23 percent. Utility earnings are not forecasted to grow as fast as other company earnings, even in the short-term. This condition has persisted since the model's implementation in 2003, with the utility growth rate being consistently lower than the non-utility growth rate.

Lastly, the important focus is the issue of growth in earnings and, eventually, dividends. Ultimately, growth in dividends ties to retention of earnings and reinvestment of those earnings in rate base and working capital. Utility stocks are considered income investments, not growth stocks, as reflected in their dividend yield of 3.67 percent, versus the 2.29 percent for non-utilities and 5.0 percent growth rate versus 8.23 percent for non-utilities. There is no need to speculate in this docket as to how much labor will be replaced by rate base (equity financed portion). Commission staff's two-stage model is based on historic growth and Commission staff's sensitivity is based on generally accepted limits to perpetual growth. These models produce a range of 6.70 percent to 9.28 percent.[2] The traditional single-stage DCF model produces an 8.85 percent return and lies between the two boundaries. These are substantially lower than WPSC's current authorized return.

[2] Range of 6.70 percent to 9.28 percent for the five-year version and range of 7.10 percent to 9.21 percent for the ten-year version.

Q. Please comment on the abrupt change from current growth rates to the terminal growth rates referenced at Rebuttal-WPSC-Moul-4.

A. Commission staff's model could be adjusted for a less abrupt change from the current growth rate to the terminal growth rate. Utility and intervenor witnesses who have used two-stage models before this Commission have done so, transitioning the growth in years six through ten. The end result lies between the five-year result and the ten-year result. Applying a more gradual transition to year 11 in Commission staff's model would produce a DCF result of 6.86 percent (as of May 29, 2015), which lies between the 6.7 percent and 7.1 percent shown on page 2 of Schedule 7 of Ex.-PSC-Pepin-1. The sensitivity analysis at 5.50 percent growth rate would be 9.25 percent, which lies between the 9.21 percent and 9.28 percent shown on page 3 of Schedule 7.

Summarizing Commission staff's DCF calculations, assuming a long-term growth rate equal to the inflation proxy shows a stockholder required return of 7.10 percent at best; assuming a continued growth at the current forecasted level shows a return of 8.85 percent; and assuming a growth rate at the gross domestic product proxy shows a return of 9.28 percent at best. All of Commission staff's DCF calculations fall within the Federal Energy Regulatory Commission's acceptable limit, which generally require only a 100 basis point spread above the historic 6-month average, not forecasted, utility bond rates.

Q. Please comment on using the data from other state commission decisions (Schedule 10 of Ex.-PSC-Pepin-1 and Rebuttal-WPSC-Moul-6 through Rebuttal-WPSC-Moul-7) to calculate risk premiums.

A. These data have the same inherent flaws as Schedule 8 of Ex.-PSC-Pepin-1; they do not reflect market requirements. Furthermore, the period reflected is entirely included in the 30-year declining interest rate period; and is susceptible to gradualism as commissions cautiously reduce returns on equity. As Dr. Booth stated, "The reluctance of regulators to lower AROEs[3] does not make them correct."[4]

Q. Do you have any concluding comments?

A. Yes. My silence on any comments should not be construed as agreement with any particular position taken by any witness.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

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[3] Allowed Returns on Equity

[4] Laurence Booth, Ph.D. "The Importance of Market-to Book Ratios in Regulation." The National Regulatory Research Institute Quarterly Bulletin, Winter 1997. p. 421